English user manual

Re:source

Multimedia Module 05/ 06

E 2.12

REVOX

Dominating Entertainment.
Revox of Switzerland.

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MULTI MEDIA MODULE MMM

The Program Director
As the name suggests, you won't just have access to a wealth of storage media. With Internet Radio, you will also have access to the whole world. The days are gone when Program directors decided what you could listen to and then subjected you to intrusive advertising and traffic reports as well. Now, you are your own Program director. You can select your own music genre of choice and listen to broadcasts at a time that suits you.

The Language Trainer
Or how would it be if, just ahead of your holiday, you could listen again to the language of the country you are going to visit? No problem with Internet Radio. First select the continent and then the country and before you know it, Spanish, Creole or French will be coming at you out of the "ether".

The iPod Connection
Your MMM will get on very well with your iPod. Just connect it to the MMM and using your Revox equipment, you can dive into the audiophile world offered by this clever little box of tricks.

The Memory Stick
When connected to the USB socket, any memory stick and any USB hard disc* can make its contribution to the media diversity of the MMM.

The Music Folder
The MMM brings order into you favourite collection of CDs. Just pack all the tracks that make up your collection onto a network disc in the highest quality and then browse through them at your leisure, looking for long-lost tracks or rediscovering some old favourites. No more looking for CDs that have been put back into the wrong box!

The Multiroom Factor
Many of your friends will also be comfortable in the world of Internet Radio and will appreciate a network player. But the MMM isn't just at your service in the main room but in every other room that your Multiroom system is connected to. And that could be as many as 32!

* with FAT16/32 formatting

INSTALLATION

The Multi Media Module is equipped with the latest electronics and should be handled with care.

Before you install the card, the M51/ M10 must be switched off and separated from the power supply, by plugging the unit out.

M51 Installation

The MMM can be operated in slots 1 - 6. The only exception is Slot 7, next to the speaker connections, as this is reserved for the 5.1 Decoder module.

For power load reasons, only one MMM may be installed in an M51 if the MMM is supplied with power internally. If power is supplied externally through DC IN, up to 4 MMMs can be installed at the same time - see Page 4.

M10 Installation

The MMM can be operated in slots 1 - 8 or A 1 - 2. Slots A1 and A2 should only be fitted with second generation modules, like the MMM, that have the following symbol on them: G²

Up to 4 MMMs can be installed in parallel in an M10.

Loosen the two screws with the TORX screwdriver supplied and remove the blanking plate.

Before removing the MMM module from its packaging, you should make sure that you are not statically charged. This could cause a damaging discharge of voltage when you touch the module. You should get rid of any static charge by touching an earthed metal object like a radiator, for example.

Remove the MMM from its packaging and select the correct jumper setting in line with the requirements/conditions - see the table on Page 4.

Remove the MMM from its packaging and feed it into its plug-in position. The two bars inside the M51/ M10 are the mechanical guides for you to use.

The lettering on the MMM plug-in card must be on top. Shortly before the plug-in card is fully locked into position in its slot, you will feel a mechanical resistance, caused by the bus board contact strip. Push the MMM fully in by applying pressure in the area of the two screw holes and fix the card in place with both screws.

All further steps for registering the new module are carried out automatically the next time you switch on.

POWER SUPPLY

Generations 5 and 6 of the MMM can be operated with an external power supply. This makes it possible to put the MMM into a quickstart mode (Fast Start), which significantly shortens access times to the individual MMM sources after start-up.
Additionally, Apple devices can now be charged-up of standby mode. In the case of an MMM 06 connected via USB, even up to 1 ampere.

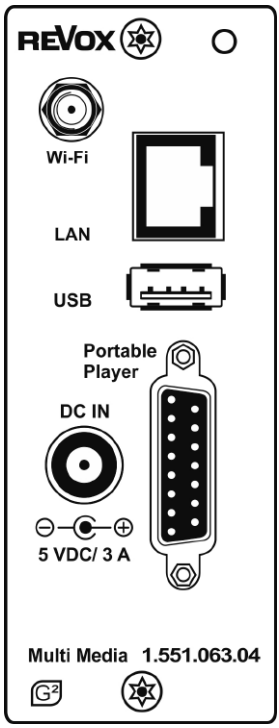
Instead of one, it is now possible to operate several MMMs in parallel in an M51 installation, if these are supplied from an external power supply.

An overview shows what options are available with the M51 and M10 devices:

Max. number MMM		M51	M10
Without external power supply ;	Fast Start **OFF**	1 pc.	4 pc.
With external power supply ;	Fast Start **OFF**	4 pc.	4 pc.
With external power supply;	Fast Start **ON**	4 pc.	4 pc.

Important advice
Fast Start (ON) is only functionally supported, if an external power supply is used.
Without external power supply *Fast Start* must be deactivated (OFF) - see also page 15.

CONNECTION PANEL MMM 05



[1] The USB storage may not exceed the maximum power consumption as defined by USB specifications.

[2] **Charging the iPod battery**
Your iPod's battery is charged up while it is being used. No charging occurs however, while the M10/ M51 is in standby mode.

► WLAN
Connection for the WLAN aerial included with the accessories. The aerial must be installed to set up data communication to the MMM using a wireless LAN.
The WLAN connection is deactivated if a LAN connection is established.

► LAN
RJ45 connector for a LAN router in the network. The WLAN connection is deactivated as soon as a LAN connection is established.

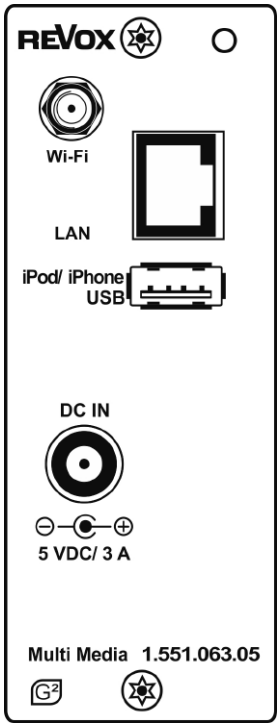
► USB[1]
USB A connection for an external USB mass storage (ext. USB hard disc with its own power supply, USB memory stick) that is formatted with a FAT16 or FAT32 file system.

► Portable Player[2]
Sub-D 15connector for an iPod. There are 3 options for establishing the connection to the iPod:

1. Direct to the iPod using the adapter cable supplied.
2. Using the Extension Kit (Part no.: 1.551.065.00), for longer distances between the MMM and the iPod or iPod Docking Station (not included).
3. Through the passive Revox Docking Station (Part no.: 1.551.061.00 / Full aluminium)

► DC IN
Connection for external power supply. 5 DVC/3A pluggable power supply is included in the scope of delivery.
-> see Fast Start mode (Chapter *Setup #1)*

CONNECTION PANEL MMM 06



[1] The USB storage may not exceed the maximum power consumption as defined by USB specifications.

[2] **Charging the iPod battery**
Your iPod's battery is charged up while it is being used. No charging occurs however, while the M10/ M51 is in standby mode.

► WLAN
Connection for the WLAN aerial included with the accessories. The aerial must be installed to set up data communication to the MMM using a wireless LAN.
The WLAN connection is deactivated if a LAN connection is established.

► LAN
RJ45 connector for a LAN router in the network. The WLAN connection is deactivated as soon as a LAN connection is established.

► iPod/ iPhone[2] / USB[1]
USB-A connection for Apple iPod and iPhone products as well as external USB mass storage, e.g. USB stick up to 32 Gb, that is formatted with the FAT16 or FAT32 file system.
Charging current for Apple devices, max. 1.0 A. (Fast Start *ON* + iPod 1A *ON*)

► DC IN
Connection for external power supply. 5 DVC/3A pluggable power supply is included in the scope of delivery.
-> see Fast Start mode (Chapter *Setup #1)*

Important advice

Your network

The following description for the cabling and the setup makes the assumption that there is a functioning network with router available and operational.

If you have any questions about the setup and configuration of your network or Internet access, please refer to your System administrator or an IT specialist of your choosing.

WLAN Wireless communication

An access point is required for the wireless communication between the MMM and the router. This can be an external unit or it can be integrated in the WLAN router.

Internet Radio

If you want to use the MMM to receive Internet radio, there must be a broadband Internet access to the router. Setting up the Internet access may involve further costs. The management and use of the Revox Internet Radio Portal is free-of-charge and already included in the purchase price

Software/Firmware version

MMM 05

The software version V2.12 requires the firmware Version MMM+3+4+5_SeDMP2 analog iPOD Revox v12771.12.bcd

MMM 06

The software version V2.13 requires the firmware Version MMM+6_ SeDMP2 digital iPOD Revox v12743.14 dev.bcd

You can check or download the current firmware version using the *DMP User Interface*. To do this, enter the MMM's IP address into a Web Browser. The browser *Mozilla Firefox* has shown itself to be very reliable here. The MMM has to be connected with the network through a **LAN** to carry out the firmware update. Revox strongly advises against using a WLAN as this can lead to serious update errors, which can only be resolved at the company headquarters in Villingen, Germany.

Scene control and MMM

If the MMM is used as a source in a scene control, only the first 8 of the total of 16 scenes available can be used. Scenes 9-16 are not supported by the MMM. Scene control is described in the Multiroom Module manual.

Glossary
NETWORK TERMINOLOGY

General
The network switch ensures the correct connections between the individual components. In order to make this possible, each device within a network must be capable of being uniquely identified. Each component therefore, is given its own address, the so-called IP address. The IP address is made up four blocks of numbers, each of which can contain up to three digits. These blocks of numbers are separated by a full stop, e.g. 192.168.1.1.

Each of the individual blocks of digits can have a value between 1 and 254. The values 0 and 255 are in part reserved for special functions and therefore shouldn't be used. In order to ensure a secure function of your network, addresses from the pre-defined range should be used, i.e.: fundamentally, the first two blocks should be 192.168.xxx.xxx; the third block can be selected from the values in the range mentioned above (must be the same for all the devices within a network however) and the fourth block should be used to differentiate each device, e.g.:

MMM	192.168.001.001
NAS:	192.168.001.002
PC:	192.168.001.003

If you don't just want to use devices within the local network but also music sources from the Internet (Internet radio), the MMM must have the possibility of being able to access the Internet. This can be achieved, for example, through a router with a connection to a DSL network. This router is also a part of the network and will be assigned its own IP address. In order to enable this connection to the outside world actually to be established, the MMM must additionally be informed of the address of the router (Gateway).

It must be ensured that the first three blocks of the Device IP, the Gateway IP and the DNS 1 are within the same address range, e.g. 192.168.0.xxx. The fourth block assigns a unique address ("house number") to the components in the local network. This number may only occur once within the local network. The Device IP mask should always be given the address 255.255.255.0.

DNS
The **D**omain **N**ame **S**ystem (DNS) is one of the most important services in the Internet. Its main task is that of converting Internet address like www.revox.de for example, into its corresponding IP address. As a rule, the router in home networks fulfils the function of the DNS.

If you should decide for the manual network configuration (without DHCP), just enter the address of your router as the DNS address during network configuration.

LAN
Local **A**rea **N**etwork
Local cabled network
A LAN connection to the MMM is the most fault-tolerant and problem free transmission technology, which offers much more security against eavesdropping than WLANs or Power LANs.

Gateway
The computer or router in your network through which the data traffic with the world outside your network, i.e. the Internet is handled.

Client
Network device that draws data out of the network, decodes it and converts it for example, into analogue music signals, which then can be played through amplifiers and speakers. Streaming clients also contain functions for displaying media content and for navigating in the Internet or on servers.

DHCP
DHCP is an abbreviation for **D**ynamic **H**ost **C**onfiguration **P**rotocol. DHCP is primarily used to enable clients to fetch their network configuration automatically from a server or router.
The **MMM** supports DHCP.

IP Address
Network address. Each device in the network needs an IP address through which it can be reached and uniquely identified. Network addresses may not occur twice. This is important if network addresses are assigned manually. If addresses are issued in your network through DHCP, you don't need to worry about the IP address assignment as the DHCL server automatically handles the question of address management.

MAC Address
The MAC address (**M**edia **A**ccess **C**ontrol) is the unique hardware address that is used for the unambiguous identification of the device in the network.
With the MMM, the MAC address can either be read out in Setup on Page #1 or alternatively, if it has not yet been installed, from the MAC sticker on the back of the module.

NAS
Network **A**ttached **S**torage. As a rule, this is a storage device with a very large capacity > 500 GB, which other devices can access. If the NAS server contains an UPnP-AV server service, the MMM can access and play media files that are stored on the NAS.

Recommendations NAS

- **Synology**
- **QNAP** with *Twonky Media Server*
- **Buffalo** *Link Station*

Power Line – LAN
With the Power Line LAN, data is transmitted through the existing power cable network. So-called Power Line Modems are required on the transmitter and receiver side. As a rule, Power Line LANs offer reasonably fault-free data transmission with a data rate sufficient for audio streaming. We recommend Power Line Modems with bit rates of 85 or 200 MBit/s.

Glossary
NETWORK TERMINOLOGY

Proxy Server
A proxy or proxy server is a computer in the network that makes data transfer quicker and more efficient and that can also increase security by deploying access control mechanisms. Usually, you do not find proxy servers in home networks. In such a case, you don't need to define a proxy address during the MMM network configuration.
The **MMM** allows the use of a proxy server.

Router (WLAN Router)
A central network device that establishes and manages the communication between the network devices.
Current devices increasing combine the function of the router with the function of an access point for wireless data communication. These combi-devices are often referred to as WLAN routers.
Normally, the (WLAN) router in a network takes on the function of the gateway to the outside world.

Server
A network device that makes data and services available for other devices in the network. A UPnP-AV server stores for example, audio and video media data and makes this data available to other devices, the streaming clients. Often, UPnP-AV servers also offer functions for the cataloguing and easy identification of medial content according to criteria such as artist, album name, genre, etc.

SSID
Service **S**et **Id**entifier / Network name. SSID designates the identification of a radio network that is based on IEEE 802.11. Each WLAN has a configurable, so-called SSID or **ESSID** (**E**xtended **S**ervice **S**et **ID**entifier), to identify the radio network.
It represents the name of the network. The SSID character string can be up to 32 characters long. It is configured in the base station (WLAN router / Access point) of a wireless LAN and defined on all the clients that should have access to it.

UPnP-AV
***U**niversal **P**lug **a**nd **P**lay – **A**udio **V**ideo*
Network standard that makes media content, e.g. on PCs or NAS discs accessible in networks.
A UPnP-AV software must be installed on PCs /NAS storage so that the **MMM** can access the stored media data.

Below, you will find a short overview of UPnP software that is suitable for the different operating systems:

Windows:
Twonky Media Server
http://www.twonkyvision.de/

Windows Media Player *11*
http://www.microsoft.com/windows/windowsmedia/de/default.aspx

Mac:
Twonky for Mac
http://www.twonky.com/

Linux:
Mediatomb
http://mediatomb.cc/
GmediaServer
http://www.gnu.org/software/gmediaserver/

WLAN (W-LAN, Wireless LAN)
Radio network. Network connection is done using radio waves in the 2.4 GHz frequency range. Radio networks are easy to install as no cables have to be laid but are often problematic and unreliable, particularly over longer transmission distances. In many cases, Power Line networks that also don't require any cabling are a better choice.

In each case, the installation of a network cable is the most fault-tolerant and problem free transmission technology. An additional point is that cabled networks don't produce any electro smog.

WPA(2)
Wi-Fi **P**rotected **A**ccess (WPA)
WPA contains the architecture of WEP, but offers additional protection through dynamic keys that are based on the following (***Cipher***) standards:
- ***T****emporal* ***K****ey* ***I****ntegrity* ***P****rotocol* (TKIP) - ***A****dvanced* ***E****ncryption* ***S****tandard* (AES)

WPA offers **P**re- **S**hared **K**eys (PSK) for authentication or **E**xtensible **A**uthentication **P**rotocol (EAP) through IEEE 802.1x.

The **MMM** is based on the authentication PSK and supports both the WPA(2) encryption TKIP and AES.

WEP
Wired **E**quivalent **P**rivacy (WEP) is the previously used standard encryption algorithm for WLANs. It should control access to the network as well as ensuring the confidentiality and integrity of the data. Because of various weak spots, the process is considered to be unsafe. For this reason, WLAN installations should use the more secure WPA encryption. See WPA.
With WPE authentication, a distinction is drawn between two processes:

Open
Open System Authentication is the standard authentication. The WEP key is used at the same time for authentication: Each client with the correct WEP key gets access to the network.

Shared
Shared Key Authentication is reputed to be the more secure version. In this case, authentication is done through the Challenge-Response authentication, with a secret key. However, the Challenge-Response process is also based on WEP and demonstrates the same weaknesses.

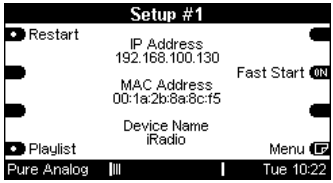
The **MMM** offers both *Open* and *Shared* WEP authentication.

Wi-Fi
Certificate for WLAN products that work according to IEEE802.11 standards and are compatible with other products.

SETUP Multi Media Module

The basic settings for the MMM are made in Setup.

Select **Media** from the **Source** menu and press and hold the **Setup** key for approx 2 seconds. Then select the **Source** softkey. The following display appears:



All settings that are needed to set the MMM up are done on a total of eleven Setup pages, whereby only the relevant pages are shown. Setup pages that you don't need because of a setting you have made are hidden.

Example: Setup #6
Use DHCP? YES

By selecting *YES* the settings on #7 and #8 in the IP and DNS area respectively are automatically made by the MMM. These Setup pages therefore, are not shown. You switch directly from Setup #6 to Setup #9.

Important advice

The following description for the Setup makes the assumption that there is a functioning network with router available and operational.

There is no further explanation of the specialist terminology used in the individual chapters. You will find an extensive description of these in the previous chapter "Glossary NETWORK TERMINOLOGY" 🕮

If you have any questions about the setup and configuration of your network or Internet access, please refer to your System administrator or an IT specialist of your choosing.

Input field in Setup [...]
Whenever you can make a setting within an input field in the following chapters, the area that is to be changed appears in the display in two square brackets **[...]**.

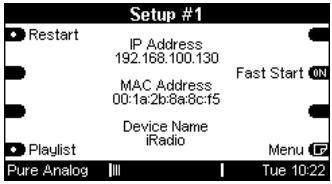
M51 Inputs at the M51 are made using the **rotary knob**. At the same time, the small red lamp (**Jog**) next to the rotary knob lights up.

M10 Inputs at the M10 are made through the display panels from the M230 or M23x service programs. In the case, you use the fields Jog ±.

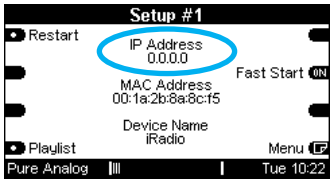
Setup #1

IP Address

The first page shows the IP address that the MMM used to login to the network.



If the MMM could not login because of an incorrect Setup setting or because of a network problem, the following display appears in the **IP Address** area:



In this case, you should check the network and/ or the settings you made.

Restart

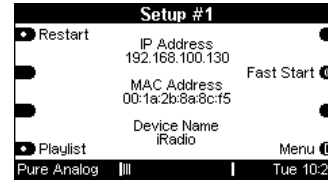
The MMM must be restarted using the **Restart** softkey if Setup changes have been made, in order for the changes to be applied. This softkey is only available on Setup #1.

MAC Address

Display of the MAC address that has been uniquely assigned to this MMM.

This is important for logging in to the *Revox Internet Audio Portal* (**IAP**)

The MAC address must be defined **WITHOUT** the colons shown here, in order to log the MMM in to the *Revox Internet Audio Portal*, which offers the configuration of the Internet radio.



Example above:

MAC Address:	00:1b:9e:87:cb:58
Revox **IAP**:	001B9E87CB58

Device Name

The name of the iRadio is always used as the **Device name**, irrespective of whether this is shown or not. Setup #2 shows you how can generate a new name. The Device name is only of interest, in order, for example, to be able to differentiate between different MMM modules within a Re:system device when setting it up.

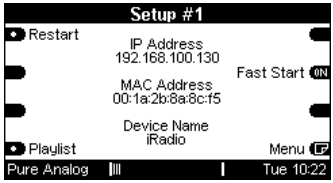
Setup #1

Playlists for M-Text

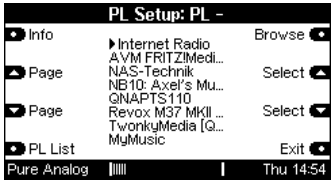
Within a building control system, it is possible to call up playlists through the MMM, from the module software version 2.10.
Other applications and functions are not affected by this menu.

The playlist must be created first before it can be called up through M-Text. The MMM can work with playlists in M3U and PLS formats. The maximum length of a playlist name is **16** characters.

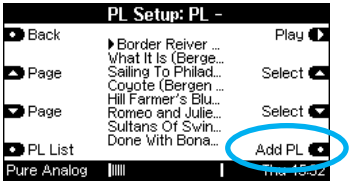
The **Playlist** softkey starts the selection menu and leads to the MMM's root folder.



Here you select a folder (USB, Music Server, ...) where you have saved the playlists that you have created. Open a playlist at the lowest level and select any track.



Now the **Add PL** softkey appears.



Pressing this softkey adds the selected playlist to the playlist setup. If the playlist is already in the list, the **Del PL** softkey appears to allow the list to be deleted.

The figure below shows the list of the playlists that have been added, "Playlist1" to "Playlist 5". A maximum of 8 playlists can be added and/or can be called up through M-Text.

Important:

A list that is going to be edited on the storage medium, e.g. NAS, must be removed from the 1 - 8 list first. When editing is complete, it can be added back in, so that it can be controlled with M-Text again.

Setup #1

Deleting playlists

If a playlist is to be deleted completely, it has to be removed from the MMM list of playlists first, before it is then removed from the storage medium. This prevents paths that are no longer valid from being stored in the MMM.

Delete All

All of the stored playlists will be deleted.

Del PL

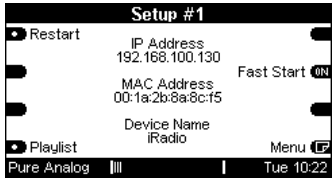
Only the selected playlist will be deleted.

You can leave the MMM playlist editor again with the **Exit** softkey.

Setup #1 – Fast Start

Quickstart function

The MMM 05/06 has a quickstart mode (Fast Start), that reduces the switch-on time to just a few seconds. In this way, the MMM processor is no longer put in standby when switching off, but maintains a permanent connection to the individual MMM sources.



This quickstart mode can be activated (ON/OFF) with the **Fast Start** softkey.

Important advice

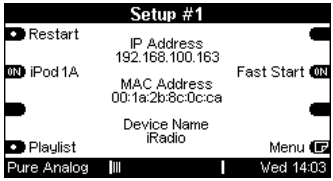
Fast Start (**ON**) is only supported, if an **external** power supply is used.

Refer also to description on Page 4.

Setup #1 – iPod fast charging

MMM 06 only – Fast charging

The MMM 06 uses a USB connection for connecting Apple devices (iPod, iPhone, iPad), which they can also be charged over.
The charging current can be increased to 1.0 A for Apple devices with a charging current that is higher than 0.5 A, if the Fast Start module is active and if an external power supply has been selected.



Fast charging can be activated (ON/OFF) with the **iPod 1 A** softkey.

Please note:
Fast charging is not available if Fast Start is OFF.

The MMM 05 does not have a fast charging function.

Setup #2

The individual MMM sources can be renamed and hidden on the second Setup page.
The hide function is active by default when Page #2 is called. This is shown through the status display: ***Source*** **On/Off**

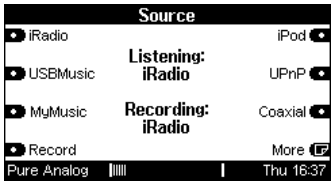
You can toggle between the **Edit name** and **On/Off** (hide sources) functions with the **Mode** softkey.

The **Submenu** softkey activates a comfort function for the M217 wall-mounted display.

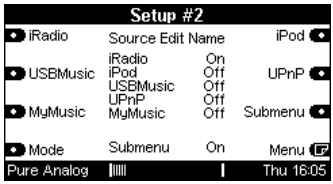
Hiding MMM sources [Source On/ Off]

5 media sources are available in the MMM:

- iRadio (Internet radio)
- iPod (iPhone)
- USBMusic (USB stick, HDD)
- UPnP (Music sever, PC, etc.)
- MyMusic



These 5 MMM sources can be seen in the Sources menus on the M51, M10 or M100 Re.system devices. In practice, normally only those sources that are used regularly or are even available are made visible.
In order to be able to hide sources in the Source menu, press the **Mode** softkey until **Source On/off** appears in the status display.
Now, each individual source can be hidden (off) or displayed (on) with the corresponding source softkey, e.g. iPod.
A maximum of 4 sources can be hidden so that at least one source is always visible in the Sources menu.



Setup #2 - [Source On/ Off]

! Follow me function

It is important that only one source is visible (on), in order to be able to take one MMM source from one side room to another. If 2 or more sources are displayed, a direct switch to the selected source is made.

*Example: Follow me - **active***

You are listening to an iPod in Room 1 and then you go to Room 2 and press the Tuner (-> Internet Radio) button on the wall-mounted display. If the Follow me function is active, you will now hear the iPod in Room 2 as well, even through the button is assigned to the Internet Radio. You will of course be able to select from all available MMM sources in Room 2 later by going through the **Home** menu.

*Example: Follow me - **not active***

You are listening to an iPod in Room 1 and then you go to Room 2 and press the Tuner (-> Internet Radio) button on the wall-mounted display. Now the iPod playback is interrupted and the Internet Radio plays the last station to have been selected.

Note

Each time the equipment is restarted, the last source to have been selected is played.

Exception with the iPod: If the iPod was the last selected source before the equipment was switched off, the system starts up with the last Internet Radio station to have been listened to.

Hidden, but still available

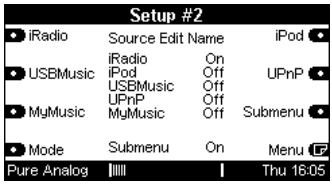
Sources that have been hidden no longer appear in the **Remote** setup (see basic description of the Re:system devices) and therefore, cannot be used for a direct call through a button.

But you don't have to do without hidden sources. You can still continue to reach these indirectly through the **Home** menu of the visible source(s).

Setup #2 - [Edit Name]

Renaming MMM sources

Simply give a name that you can clearly assign to the individual MMM sources. This can be up to 8 characters long.



The name of the iRadio is always used as the **Device name**, irrespective of whether this is shown or not - see Setup #1.

In order to be able to rename sources, press the **Mode** softkey in Setup #2 until **Source Edit Name** appears in the status display.

Now using the source softkeys, e.g. iRadio, each individual source can be renamed. To do this, a modification menu opens. The following functions are available there to you for changing names:

The following functions are available to you for changing names:

The ⇦ **Cursor** ⇨ touch keys move the **[ ]** cursor left and right respectively.

The **Delete** touch key deletes a character where the **[ ]** cursor is positioned.

The **Insert** touch key inserts a character to the left of the **[ ]** cursor.

The **Store** touch key saves the currently display name and returns you to the Tuner menu.

The **Cancel** touch key returns you to the Tuner menu without saving the changes you have made.

Restoring standard names:

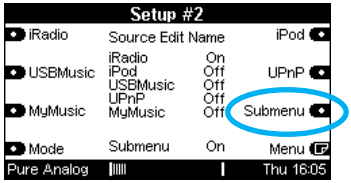
Delete all the characters in a source's name and then confirm this with the **Store** button.

[_] _ _ _ _ _ _ _ + Store = [Standard]

Setup #2 - Submenu

Activating M217 submenu

If the Follow me function is activated (Setup #2, only **one** MMM source visible), a submenu can be activated additionally as a comfort function (Submenu **On**), that allows two further sources to be selected directly through the M217 wall-mounted display, within 10 seconds.



Display on the M217

A) Submenu active (On)

B) Submenu deactivated (Off)

The MMM source Network Music (UPnP) has been selected in the figure above. Within 10 seconds, the **My Music** or **Internet** source can be selected directly through the two softkeys (not shown here) on the M217 display.

If you don't want to make a selection in the submenu but rather want to navigate further, simply press one of the two softkeys ▲▼.
The standard view, as shown in Figure B then appears immediately.

Submenu display, based on the visible MMM sources:

Source **On**	→ **Submenu**
iRadio	→ MyMusic + UPnP
Network	→ iRadio + MyMusic
MyMusic	→ UPnP + iRadio
iPod/ USB	→ MyMusic + UPnP

ⓘ UPnP = Network Music

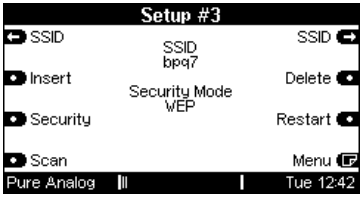
Submenu is not displayed?
If the submenu is activated in Setup #2 (Submenu **On**), but two or more sources are made visible, the submenu function does not work.
Solution: Hide all sources except one.

ⓘ
The submenu is also available in the Main room if the wall-mounted display (M217 + M218) is directly connected to a Re:system device.

Setup #3

SSID [...]

Here, you define the name of your network's **SSID**.

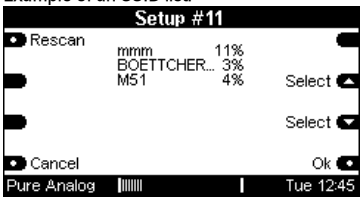


The [...] cursor is moved left and right with the SSID and SSID softkeys. The Insert softkey inserts a character to the left of the [...] cursor. The Delete softkey deletes the character where the [...] cursor is currently positioned.

SSID search

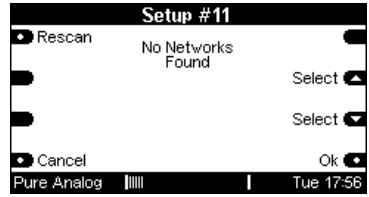
Alternatively, you can execute a search with the Scan softkey, followed by a listing of all the networks found.

Example of an SSID list:



The list is displayed in Setup #11. If, unexpectedly, the required network is not visible, it is possible that the Access Point (WLAN Router) is badly positioned or the MMM aerial is not lined up correctly. Change the position and carry out a new search with the Rescan softkey.

If the required network is not found even though all conditions are fulfilled and the following display appears, it is possible that the cabled access (LAN) is already in place or the network name, (SSID), is hidden by the Access Point. In this case, the SSID must be entered manually, see **SSID**.



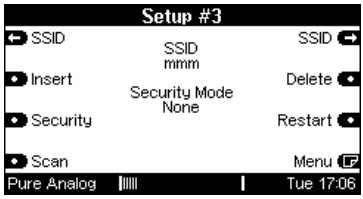
Select network

If the required network is visible, you select it with the Select Select softkeys and confirm your choice with the Ok softkey. You quit Setup #1 with the Cancel softkey. The existing setting in Setup #3 is retained.

Setup #3

Security Mode

The encryption method can be selected or modified to that of the WLAN router with the **Security** softkey.



There are three options. You can make your choice from an endless loop using the Security softkey.

None
WEP
WPA-PSK
WPA2-PSK

⇨ **None** There is no encryption!

⇨ **WEP** 🕮

⇨ **WPA-PSK** 🕮

⇨ **WPA2-PSK** 🕮

Setup #4 and #5 with restart

Further Setup pages (#4 for WPE settings and #5 for WPA(2)-PSK settings) are now accessible, depending on the selected encryption method.

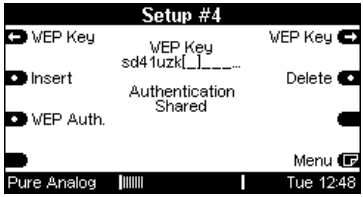
Carry out a restart of the MMM with the **Restart** softkey, after configuring Setup pages #4 and/or #5. Otherwise, the existing encryption method is retained.

Setup #4 [⇨ WPE]

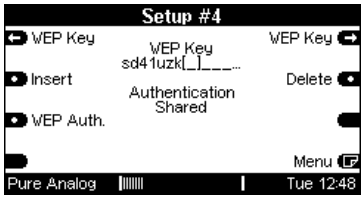
WEP Key [...]

WEP encryption is done using a **WEP key** that is defined once for the router and all WLAN devices.

Enter your WLAN network WEP key here.



The [...] cursor is moved left and right with the WEP Key and WEP Key softkeys respectively. The Insert softkey inserts a character to the left of the [...] cursor. The Delete softkey deletes the character where the [...] cursor is currently positioned.

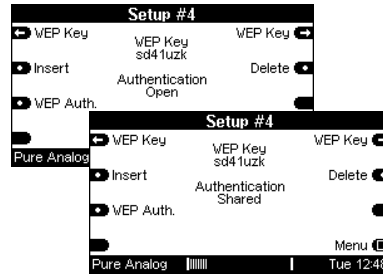


NOTE
A change in this menu requires a restart to be carried out.

Authentication (WEP)

The MMM offers both the WEP authentications *Open* and *Shared*.

The required authentication can be set through the WEP Auth. softkey.



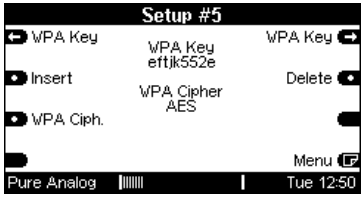
NOTE
A change in this menu requires a restart to be carried out.

Setup #5 [⇨ WPA(2) PSK]

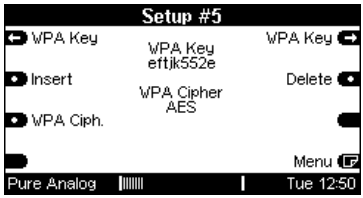
WPA(2) Key [...]

WPA encryption is done using a **WPA key** that is defined once for the router and all WLAN devices.

Enter your WLAN network WPA(2) key here.



The [...] cursor is moved left and right with the WPA Key and WPA Key softkeys respectively. The Insert softkey inserts a character to the left of the [...] cursor. The Delete softkey deletes the character where the [...] cursor is currently positioned.

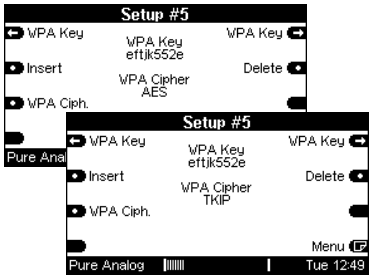


NOTE
A change in this menu requires a restart to be carried out.

WPA Cipher

The MMM offers both ***AES*** and ***TKIP*** as WPA(2) cipher (encryption standard).

The required encryption standard can be set through the WPA Ciph. softkey.

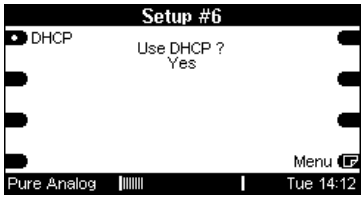


NOTE
A change in this menu requires a restart to be carried out.

Setup #6

DHCP

Using the DHCP softkey, you can define whether logging in to the network should be done automatically **DHCP ⇨ Yes**, or whether the required setting will be made manually **DHCP ⇨ No**.



Setup pages #7 and #8, where the corresponding settings (IP, Gateway, DNS, etc.) can be made, are accessible if you select the setting **DHCP ⇨ No**. You get to these Setup pages with the Menu softkey.

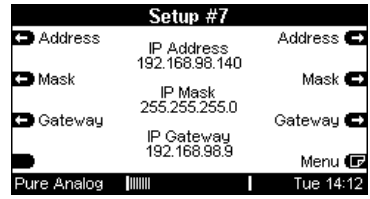
You get directly to Setup page #9 where the Proxy setting can be made, if you select the setting **DHCP ⇨ Yes**.

NOTE
A change in this menupoint requires a restart to be carried out.

Setup #7

IP-Address [...]

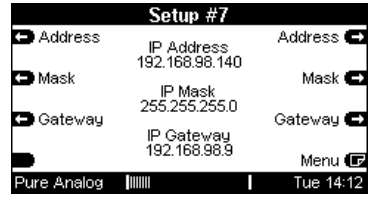
The 4 blocks of the IP address that the MMM should have, are set using the two **Address** softkeys.



In a network of DHCP-enabled LAN devices, you must always ensure that these are **NOT** given the MMM's IP.

IP Mask [...]

The 4 blocks of the IP subnet mask that the MMM should have, are set using the two **Mask** softkeys.

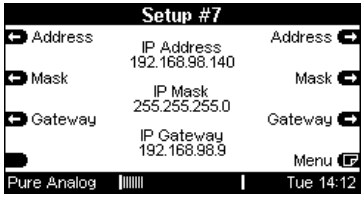


NOTE
A change in these two menupoints requires a restart to be carried out.

Setup #7

IP Gateway [...]

Access to the Internet is defined through the two **Gateway** softkeys.



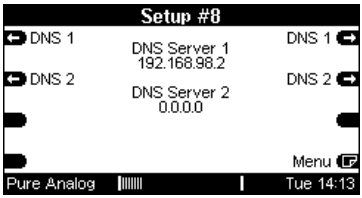
If such a data exchange should be done outside the LAN, the IP Gateway must be configured according to the on-site requirements.

NOTE
A change in these two menupoints requires a restart to be carried out.

Setup #8

DNS Server 1 / 2 [...]

The IP addresses of the DNS serves 1 and 2 can be entered using the **DNS 1** and **DNS 2** softkeys respectively.



NOTE
If the MMM is connected with a standard (WLAN) router, the IP address of this router can simply be entered here.

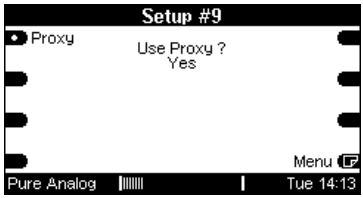
In this case, the DNS address of the second server (2) does not have to be configured.

A change in one of these two menupoints requires a restart to be carried out.

Setup #9

Proxy Server

You can define whether communication should be done using a Proxy server with the Proxy softkey.



The setting **Use Proxy ?** ⇨ **Yes**, makes Setup page #9 accessible, where the corresponding settings (Proxy address, Port) can be made. You get to this Setup page with the Menu softkey.

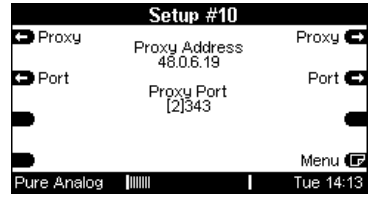
With the setting **Use Proxy ?**
⇨ **No**, Setup page #9 is skipped.

NOTE
A change in this menu requires a restart to be carried out.

Setup #10

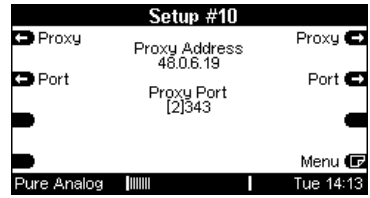
Proxy Server Address [...]

The 4 blocks of the Proxy Server address is defined using the two **Proxy** softkeys.



Proxy Server Port [...]

The corresponding Proxy Server port can be defined using the two **Port** softkeys.



NOTE
A change in these two menupoints requires a restart to be carried out.

MMM Operation

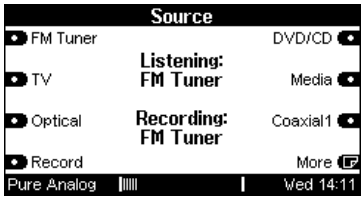
Once all the required settings have been made in the MMM Setup, the Multi Media Module (MMM) can be called in the M51 Source menu and/or through the keys on the M217/M218 combination that were assigned through the Remote menu.

The manual always shows the M51 display view to illustrate working with the MMM. In terms of content, this display view is identical to that of the **M217** wall display. The only difference is the resolution and/or modified structure for the selection of menupoints.

The most important menus and selection options available for operating the MMM through an M217/M218 display combination are shown on the next pages.

The MMM displays the new source **Media** in the Source menu.

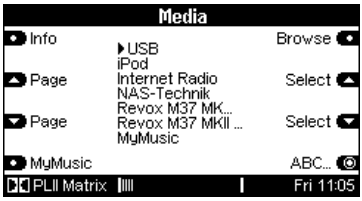
Source menu with Media



The following Start screen appears in the initial seconds after calling the source **Media**:

During this start phase, the MMM searches for connected devices (USB storage, iPod) and/or network devices (NAS) and the Internet access for using Internet radio.

Once the Start phase is completed, the selection options that have been found are listed.



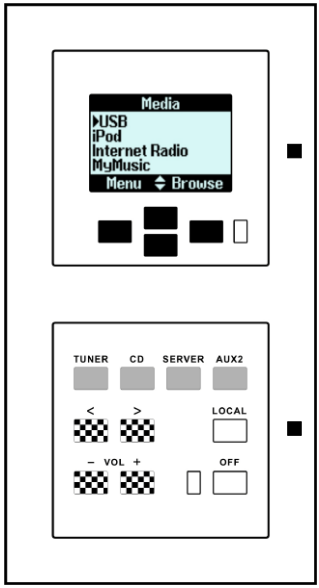
Detailed explanations of these options follow in the next chapters and you will be shown how you can define the search for particular tracks, albums or radio stations.

Wake up with the Multimedia module - See Page 49:

Multiroom: Questions & Answers

M217/ M218 operation

Thanks to the sophisticated Revox Multiroom concept, it is possible to operate the MMM from each additional room that is connected to the Multiroom system.



Call the MMM Main menu though the source keys on the M218 keyboard (grey keys) that you assigned in the *Remote* setup of the source, *Media*.

In the same way you use the M218 keyboard to control the volume [Vol ±] as well as changing track [<>], assuming that the selection menu supports this, (chequered keys).

Further operation of the MMM is done through the softkeys on the M217 display, (black keys).

M217 Menu overview Part ①

The following menu overview shows the most important M217 menus for operating the MMM. As the selection menus are very dependant on the choice of devices connected to the MMM (USB, iPod, clients, etc.) it is possible that the graphics differ from your M217 menus.

MMM Main menu

Media
USB
iPod
Internet Radio
MyMusic
Menu Browse

USB selection by artist

USB
ABBA
Al Green
Allman Brothers B...
Anastacia
Menu Browse

iPod selection

ReVox iPod
Playlists
Artists
Albums
Songs
Menu Browse

Internet Radio selection

Internet Radio
Favorites
Added Stations
Location
Genre
Menu Browse

M217 Menu overview Part ②

Network client selection

Menu: Now Playing

+MyMusic selection

You can add the radio station currently playing and/or the path to your favourite music tracks to the MyMusic category by pressing the **+MyMusic** softkey. We recommend however, only adding music storage paths to MyMusic that are always available.

ABC search

The alphabetically sorted selection allows a specific selection based on names that start with a particular letter. This can be names of folders, titles or radio stations.

Info window

The **Info** softkey shows the status of the currently selected source. In the example shown on the left, the track *The Winner Takes It All* by *ABBA* from the album *Super Trouper* is playing.

Menu selection

The **Menu** softkey opens the navigation or control page with the selection: **Back** , **ABC...**, **Home**, (**Info**), **MyMusic**. You will find a functional description for these selection options on the next page, chapter *General control softkeys*.

General control softkeys

Softkey **ABC...**
The alphabetically sorted selection allows a specific selection based on names that start with a particular letter. This can be names of folders, titles or radio stations. The ABC search can only be used with sorted lists. The following message appears with unsorted lists:
„*unsorted list...*"

Softkey **Back**
This key returns you to the next highest menu level.

Softkey **Browse**
The **Browse** softkey opens a folder or a category and takes you to the next selection level.

Softkey **Home**
Returns you to the Main menu.

Softkeys **Page** ▲▼
Page up/down within a list.

Softkeys **Select** ▲▼
Line up/down within a list.

Softkeys **Previous/ Next**
Scroll to next or previous track or radio station

Softkey **Search**
Fast forward or rewind to a particular timepoint.

Softkeys **+MyMusic**
You can add the radio station currently playing to the MyMusic category by pressing the **+MyMusic** softkey. A **maximum of 40 stations** can be added to the MyMusic list.

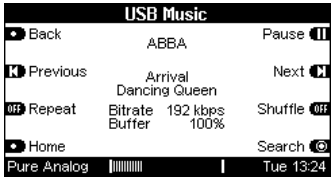
Please do not confuse this with the *Favorites* softkey that calls an existing Internet Radio Favorites list.

NOTE

The MMM is purely a reproduction medium that plays the content of different media such as USB storage, iPod, Internet radio, etc.
The MMM cannot modify the content of these media or delete parts or add new items.

SHUFFLE

The **Shuffle** function allows the playback of tracks in a random order. Depending on the selection criterion you use to activate the Shuffle function, either only the tracks within an album are played in a random order (*Albums*) or all the tracks on the iPod (*Songs*).

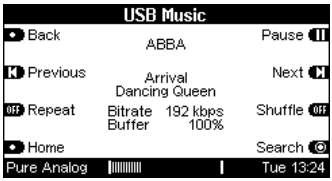


Before the Shuffle function can be selected, a track must have been started through the **Play** function.

Shuffle mode is automatically deactivated, as soon as you select a different selection criterion or if you switch to another media source.

REPEAT

With the **Repeat** function, you can repeat individual tracks (*Repeat On*) or complete folders, (Albums, Songs, etc.) (*Rpt All*).
Before the Repeat function can be selected, a track must have been started through the **Play** function.

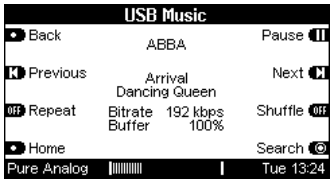


The required function can be set in an endless loop by repeated pressing of the Repeat touch key.

Repeat Off
Repeat On
Rpt All

Fast wind with search

The **Search** function enables jumping to a particular time-position through fast forward or rewind.



The following display appears when the Search menu is called:

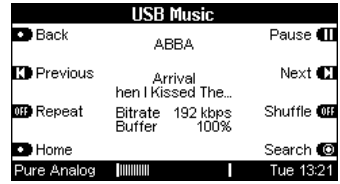
The search can now be started with the FFW & FRW (fast forward/fast rewind) softkeys. Different search speeds are available: 3x, 6x, 12x, 24x.

The **Play** softkey stops the fast winding and returns the device to Play mode. **Back** closes the Search menu.

Info - Status overview

The **Info** softkey shows the status of the currently selected source.

In the example shown below, the track *When I Kissed The teacher* by *ABBA* from the Album *Arrival* is playing. This title was stored with a data rate of 192 Kbps.



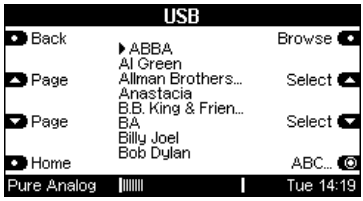
Bit rate [kpps]
The data rate with which the selected radio station transmits or a track was compressed.

Buffer [%]
The filling level of the MMM data buffer that is used to balance out MMM fluctuations in the data streaming. The buffer display should always be 100%. If it reaches 0%, playback is stopped until data is received again.

USB

The **USB** menu enables access to content on connected USB storage media (USB Memory stick).

All tracks and music folders are displayed after the USB selection is made. You can make your selection using the **Page** and **Select** navigation softkeys. The **Browse** softkey opens folders containing more than one track.

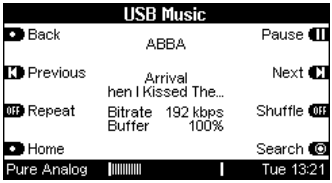


USB storage*
Use the USB connection only for USB storage up to 32 GB, as large amount of data can lead to long read-in terms. Sometimes a capturing of content is even impossible.
A network hard drive (NAS) with UPnP service is recommended for a large music collection.

*with FAT16/32 formatting

The **Play** softkey only appears once a track is available for selection. Press **Play** to start the playback of the title:

The softkey **Pause** gives you the opportunity to pause the playback.



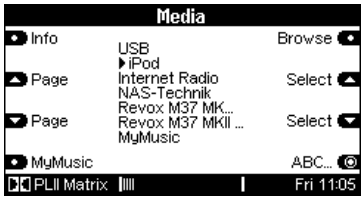
You can scroll to the preceding or the following track within the folder / album respectively, using the **Previous** and **Next** softkeys.

The **Shuffle** and **Repeat** functions are described in detail in the following **iPod** selection menu – see pages 33.

ⓘ
The track names are defined by the names of the music files. ID3 tags are not supported for selection.

iPod

The **iPod** menu allows access to content on the connected iPod.



The selection options in the iPod menu are predefined by the iPod and are not handled by the MMM controller. For this reason, it is possible that new or modified selection options will be added in the future. At the time of printing this manual, the following selection criteria were available:

- Playlists
- Artists
- Albums
- Songs
- Genres
- Composers
- Audiobooks

You can make your selection using the **Page** and **Select** navigation softkeys. The individual selection criteria are selected with the **Browse** softkey.

Press **Play** to start the playback of the title:

You can scroll to the preceding or the following track respectively within the list / album, using the **Previous** and **Next** softkeys.

Use **Pause** to interrupt the playback.

The **Shuffle**, **Repeat** and **Search** functions are described in detail in the chapter General control softkeys – see pages 31.

NOTE

iPod name
The headline of the display shows the name of the iPod that was assigned to it with *iTunes*, in this case *ReVox iPod*.

Charging the iPod battery
Your iPod's battery is charged up during operation. In standby mode charging only takes place when an external power supply is used. See page 4 & 16.

Internet Radio

The selection **Internet Radio** gives you access to thousands of radio stations available from around the world. As well as the linguistic diversity available, you can also make specific selection based on particular musical directions (**Genres**).
Podcasts offer even more individuality. Podcasts are broad-casts such as news programs, magazine shows, crime dramas, comedies, etc. that are started when you select them. You don't switch onto a program that is currently running as is usual when listening to (internet) radio. You actively start the playback of a program.

Starting Internet Radio

Select the menupoint **Internet Radio** in the Main menu.

The current selection options are displayed:

The selection options in the Internet Radio menu are being constantly been adapted to meet customer requirements. For this reason, it is possible that new or modified selection options will be added in the future. At the time of printing this manual, the following selection criteria were available:

- Favorites
- Added Stations
- Device location (country)
- Location
- Genre
- Podcasts By Location
- Podcasts By Genre
- New Stations
- Most Popular Stations

➲ Favorites

Your favourite radio stations or groupings that you have previously organised through *Revox Internet Audio Portal* are listed under *Favorites*. How to do this and what you have to take into account is described in the chapter *Setting up Internet Radio* on page 33.

➲ Added Stations

The selection *Added stations* lists those radio stations that you added yourself in the *Revox Internet Audio Portal* (see chapter ***IAP***, page 41), as these are not listed by default. You need the URL, the Internet path, of the operator of the radio station to be able to add a new Internet

radio station in the IAP. You will usually find this on the provider's homepage or you can display them in a media player.

➲ Device location (country)

Your MMM knows which country it is in through its IP address. Using this information, it offers the user direct access to the selection of national radio stations. This shortens the time needed to make your selection as you don't have to go through the continent and country selections first.
Correspondingly, an MMM that is located in London (UK), will show **United Kingdom** here.

➲ Location

Selection of radio station by countries. Searching for the required radio stations is made quick and specific through the classification in Continents ↘ Countries ↘ Genre.

➲ Genre

Listing of radio stations based on certain music directions such as rock, jazz, folk, etc. Within the genre, the individual radio stations are either listed alphabetically (*All Stations*) or by the countries offering this type of music.

➲ Podcasts By Locations

Listing of podcast transmissions based on the country/continent where the provider is located.

➲ Podcasts By Genres

Listing of podcast transmission based on the genre, which these transmissions are assigned to.

➲ New Stations

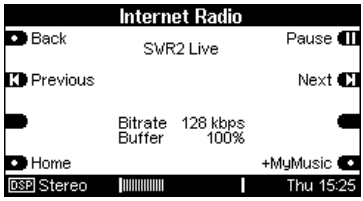
New radio stations are being added somewhere in the world every day. As you won't want to go to the effort of searching for new radio station arrivals every day yourself, these are listed in the selection *New Stations*.

➲ Most Popular Stations

Listing of the Internet radio stations that are currently being listened to the most.

Internet radio playback

The following display appears after a station has been selected:



Using the **Previous** and **Next** touch keys, you can scroll to the preceding or the following transmission within the list respectively.

Pause interrupts playback, if it is a Podcast transmission [🕮] . On the other hand, in the case of a live streaming from a radio station, the pause function is deactivated.

Shortening access times

When you store stations or podcasts through the Internet radio option into the **MyMusic** folder, a list path is created in the background.

If a **MyMusic** entry is now called, the receiver uses this list path as the route to find the corresponding radio station.
The more entries there are in the list, the more time the receiver needs to find the entry again.
It makes sense then to select the shortest list path when adding a **My Music** entry for radio stations or podcasts that you call up on a daily basis.
As a rule this is a call that is made through the Favourites list that you create in the (*Online Services)* option in the Revox Internet Audio Portal (see Page 44).
Path: Internet Radio > Favourites > Favourites Group
A good alternative without the Internet Portal is:
Path: Internet Radio > Device Location [Country] > Genre

The longest access times result from using the following selection to search for the station:
Path: Internet Radio > Countries > Continent > Country > All Stations

By employing a more elegant call-up strategy, you can achieve access times that are 5-times faster.

UPnP-AV Server

Network servers that support the UPnP-AV standard can be accessed through the network (LAN or WLAN). The most usual instance of such a server is a NAS hard disc.
The name of a media server is defined at the server itself.

It is however possible to use a normal PC as a network server. This though requires a UPnP-AV software so that the MMM can find a play stored music files. Such a software is offered, for example, by the company *Twonky Vision* with the software *TwonkyMusic*.

The way a menu from such a UPnP-AV server looks can be very different, depending on the configuration.

Menu from the Revox M37 MK2 Music server:

Menu from the Revox NAS server in the development department:

You can make your selection using the **Page** and **Select** navigation softkeys, as with all other media content. The individual selection criteria are selected with the **Browse** softkey.

Important:

Folder name Music

The MMM can only find your music tracks on the media server if they are located in a folder called **Music**. Other folder names are not recognised.
This folder can be displayed with another name than Music in the media server MMM folder. This is very much dependant on the settings and the various models of these media servers. In the example shown above, the network folder *Music* is shown in the display headline as **Musik**.

ⓘ
You will find a small overview of UPnP software for Windows, Mac and Linux under Network Terminology.

MyMusic

The **MyMusic** selection on the start page covers all your favourites that you have added through the MMM menu. This can include paths to music tracks on USB storage media or network hard discs or also favourite radio stations. We recommend however, only adding music content storage paths to MyMusic that are always available.

Select MyMusic directly through the **MyMusic** softkey or go through the menu with the **Browse** softkey.

A list appears with previously stored favourite music tracks and/or radio stations. Each entry that is listed here has been added with the **+MyMusic** softkey.

You can make your selection using the **Page** and **Select** navigation softkeys. You start the playback with the **Play** softkey.

ⓘ Favorites - Internet radio

You will find the second selection of favourites with the name **Favorites** in the Internet radio area. This selection can only be organised through the *Revox Internet Audio Portal* at a PC and it contains Internet radio stations. How you organise them is described in the next chapter.

- see *Internet Radio setup*-

Deleting a MyMusic entry

Entries / paths can be deleted from the MyMusic list with the **Remove** softkey. The actual music track remains on the storage medium. Only the link is deleted.

M208 Operation - MyMusic

There is a separate mpi file called *Revox Multimedia Module* in the *M208 Project Manager* device library, for controlling the MMM in the *MyMusic* area.

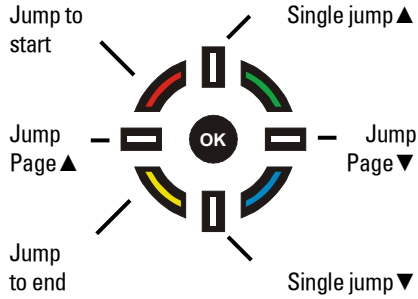
As the description in this manual relates to the system software V2.00+, it is important to use the corresponding *M208 Project Manager V2.01* or higher. The MMM doesn't support older versions.

You can transfer all entries in the *MyMusic* area to the M208 remote control with the MMM user interface.

After synchronising, select the required *MyMusic* entry using the navigation compass and confirm this with the **OK** key. Shortly after pressing the OK key, playback of the corresponding track or Internet radio program will start.

ⓘ Multiroom operation
This control option can be used both in the main room and in all additional rooms.

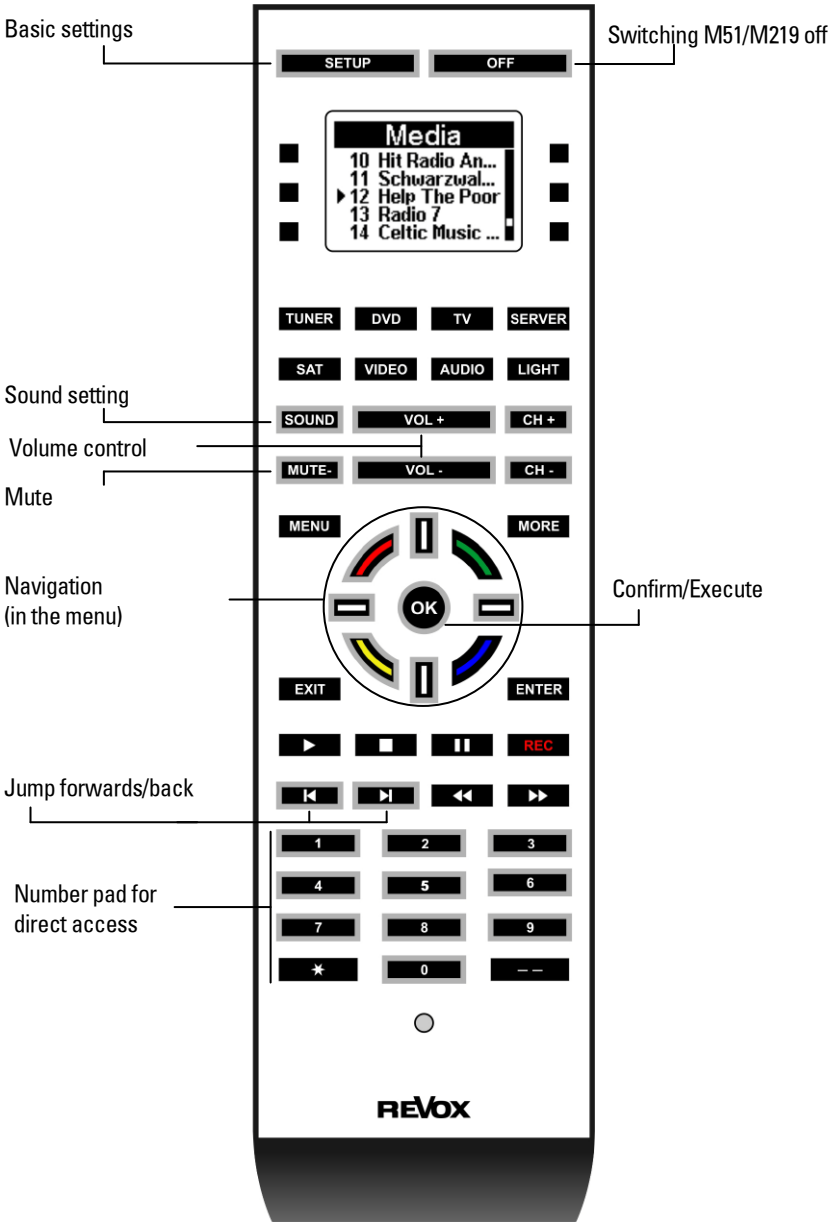
The are several navigation options to help you find the desired entry in the list in the shortest time:



A synchronisation with the M208 should always be carried out if you modify any of the *MyMusic* entries in the MMM by adding new ones or deleting existing ones. Otherwise, wrong *MyMusic* entries will be called.

ⓘ Synchronisation with the M208
How to carry out a synchronisation with the M208 remote control is described in the chapter *Synchronising MyMusic.*

M208 Remote control



Synchronising MyMusic

The following display appears the first time the MMM is started on the remote control:

The **MyMusic** selection has not yet been synchronised in this constellation.

Connect the M208 with the supplied USB cable to the M208 Link inter-face for synchronisation. The Link interface for its part is connected to the M10 / M51 through a cable to the M Link.
Once the connection is established, select the source key at the M208 where the MMM controller is stored and press the **SETUP** key. Confirm the setting ▸ **Synchronize** with the **OK** key.

Important advice
The M208 remote control must not be operated while synchronisation is running.

Synchronisation now starts and only takes a few seconds. When the synchronisation is complete, the following display appears:

Now, all stored *MyMusic* entries appear in the display the next time the MMM controller is called. The display order is determined by the order they were stored in the MMM.

ⓘ
A synchronisation with the M208 should always be carried out if you modify any of the *MyMusic* entries in the MMM by adding new ones or deleting existing ones. Otherwise, wrong *MyMusic* entries will be called.

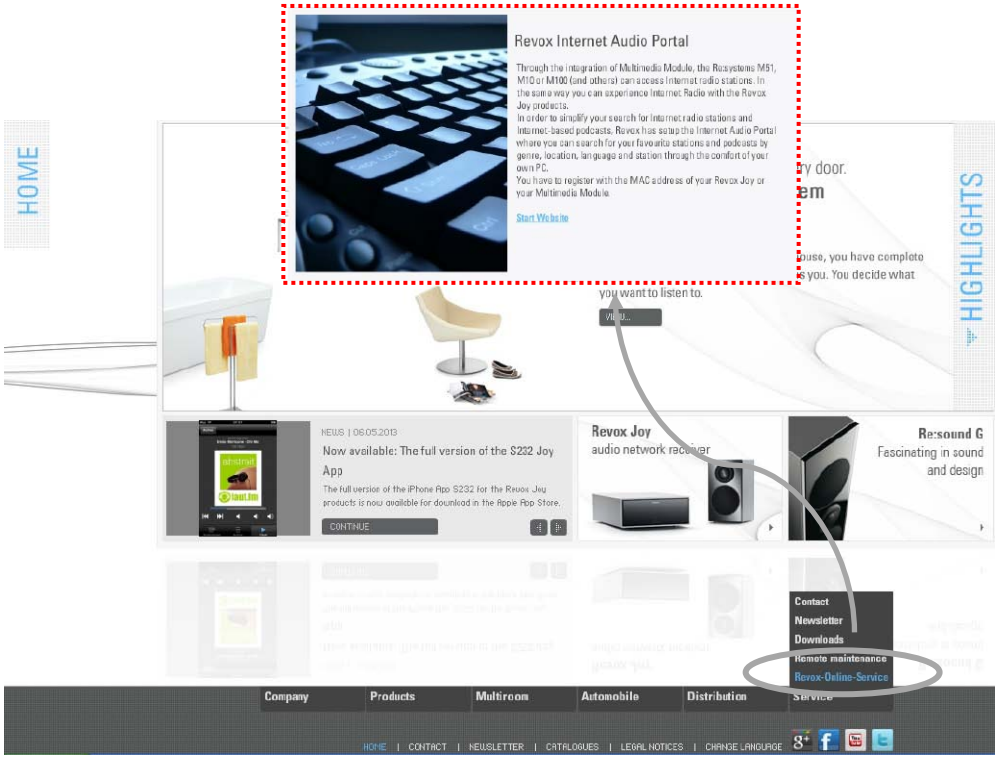
Setting up Internet Radio

The list of radio stations that appears in the **Internet Radio** category in your Multimedia Module is made available by a service provider and transferred to your MMM through the Internet connection. You can extend and edit the ***Favorites*** and ***Added Stations*** lists in the *Internet Radio* menu in the **Online Services** category as you wish, through Revox's Internet Portal.

This is done as follows: Open your Internet Browser and call the Revox Homepage under:

www.revox.de Germany
www.revox.ch Switzerland
www.revox.com English

Under the option "Online Services", call the Revox **Internet Audio Portal**, where you can register and configure your MMM.

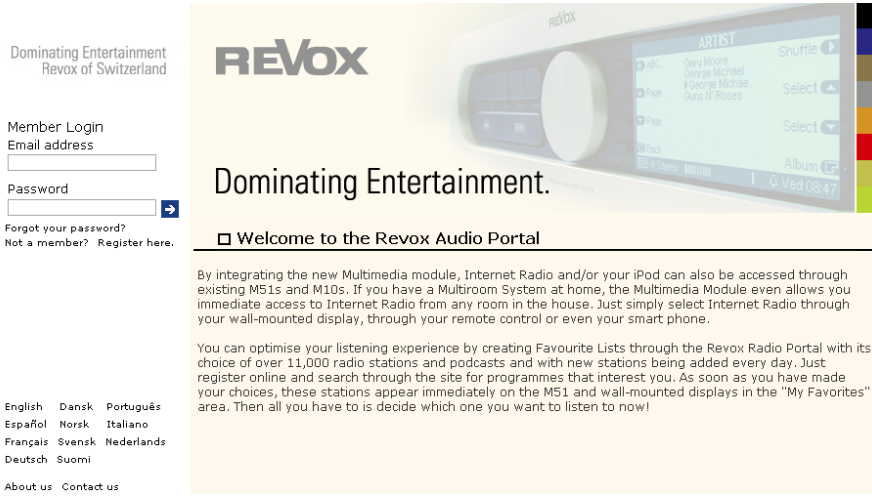

Revox Internet Audio Portal
Through the integration of Multimedia Module, the Roxsystems M51, M10 or M100 (and others) can access Internet radio stations. In the same way you can experience Internet Radio with the Revox Joy products.
In order to simplify your search for Internet radio stations and Internet-based podcasts, Revox has setup the Internet Audio Portal where you can search for your favourite stations and podcasts by genre, location, language and station through the comfort of your own PC.
You have to register with the MAC address of your Revox Joy or your Multimedia Module.
Start Website
HOME
HIGHLIGHTS
you want to listen to.
NEWS | 06.05.2013
Now available: The full version of the S232 Joy App
The full version of the iPhone App S232 for the Revox Joy products is now available for download in the Apple App Store.
CONTINUE
Revox Joy
audio network receiver
Re:sound G
Fascinating in sound and design
Contact
Newsletter
Downloads
Remote maintenance
Revox-Online-Service
Company
Products
Multiroom
Automobile
Distribution
HOME | CONTACT | NEWSLETTER | CATALOGUES | LEGAL NOTICES | CHANGE LANGUAGE

To the *Internet Audio Portal* ⇨

Internet Audio Portal - IAP

You can login (*Member Login*) if your MMM has already been registered in the **I**nternet **A**udio **P**ortal (**IAP**). If this is not the case, you can register with ⇨

How to do this is described in the next chapter: *Initial login*


Dominating Entertainment
Revox of Switzerland
Member Login
Email address
Password
Forgot your password?
Not a member? Register here.
English Dansk Português
Español Norsk Italiano
Français Svensk Nederlands
Deutsch Suomi
About us Contact us
REVOX
Dominating Entertainment.
Welcome to the Revox Audio Portal
By integrating the new Multimedia module, Internet Radio and/or your iPod can also be accessed through existing M51s and M10s. If you have a Multiroom System at home, the Multimedia Module even allows you immediate access to Internet Radio from any room in the house. Just simply select Internet Radio through your wall-mounted display, through your remote control or even your smart phone.
You can optimise your listening experience by creating Favourite Lists through the Revox Radio Portal with its choice of over 11,000 radio stations and podcasts and with new stations being added every day. Just register online and search through the site for programmes that interest you. As soon as you have made your choices, these stations appear immediately on the M51 and wall-mounted displays in the "My Favorites" area. Then all you have to is decide which one you want to listen to now!

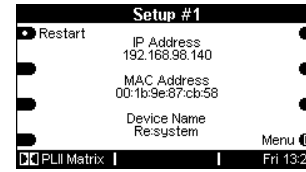
Revox Internet Audio Portal start page

Initial login

You must register your MMM in order to be able to use the **IAP** service. Registration is done using your MMM's MAC address, your e-mail address and password that you define for yourself.

When logging in for the first time, please enter the **MAC** address of your MMM. This uniquely identifies your MMM. You will find the MAC address in the MMM Setup menu on **Page #1**.

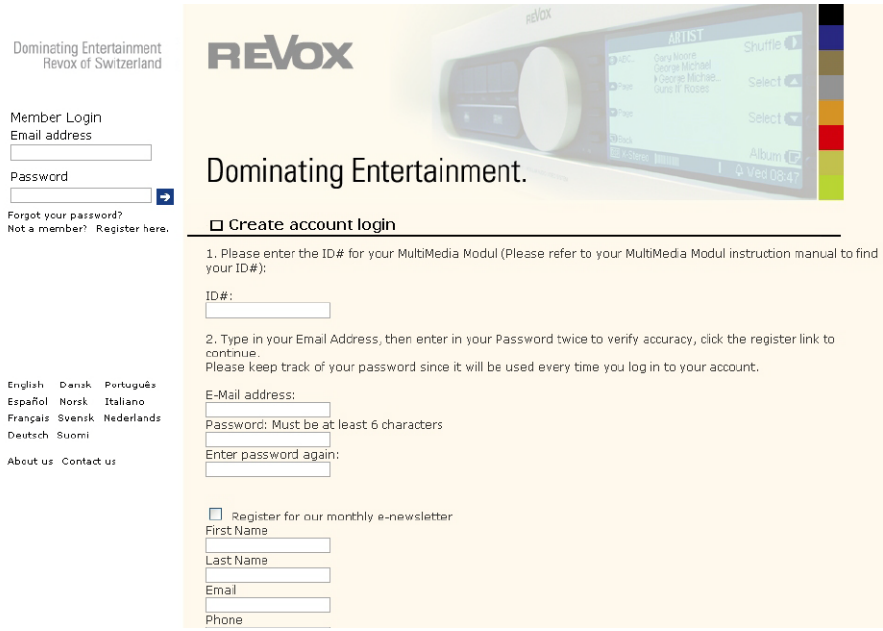
Press *Source* softkey.



e MAC address is made up of six pairs of characters, e.g.:
00:1b:9e:87:cb:58. Don't enter the separators when inputting the address. For the example shown above, the correct input in the IAP would be: **001B9E87CB58**

MMM Registration form in the IAP ⇨

IAP Registration page


Dominating Entertainment
Revox of Switzerland
Member Login
Email address
Password
Forgot your password?
Not a member? Register here.
English Dansk Português
Español Norsk Italiano
Français Svensk Nederlands
Deutsch Suomi
About us Contact us
REVOX
Dominating Entertainment.
Create account login
1. Please enter the ID# for your MultiMedia Modul (Please refer to your MultiMedia Modul instruction manual to find your ID#):
ID#:
2. Type in your Email Address, then enter in your Password twice to verify accuracy, click the register link to continue.
Please keep track of your password since it will be used every time you log in to your account.
E-Mail address:
Password: Must be at least 6 characters
Enter password again:
Register for our monthly e-newsletter
First Name
Last Name
Email
Phone

NOTE

If you are using several MMMs, each one has to be registered individually.

Register for online newsletter

If required, you can subscribe to the free-of-charge Revox Newsletter, which is sent by e-mail. To do this, you just have to complete the corresponding fields and set the checkbox in the corresponding field.

You can transfer a one-time generated **Favorites** list from one MMM to all other MMMs.
This is also done in the IAP under the section:

My account
⇨ My preferences

Managing the Revox IAP

Once you have registered, you can make a selection for the extensive pool of radio stations and add it to the favourites list (*Favorites*), add new radio stations to *Added Stations* or search for podcasts.

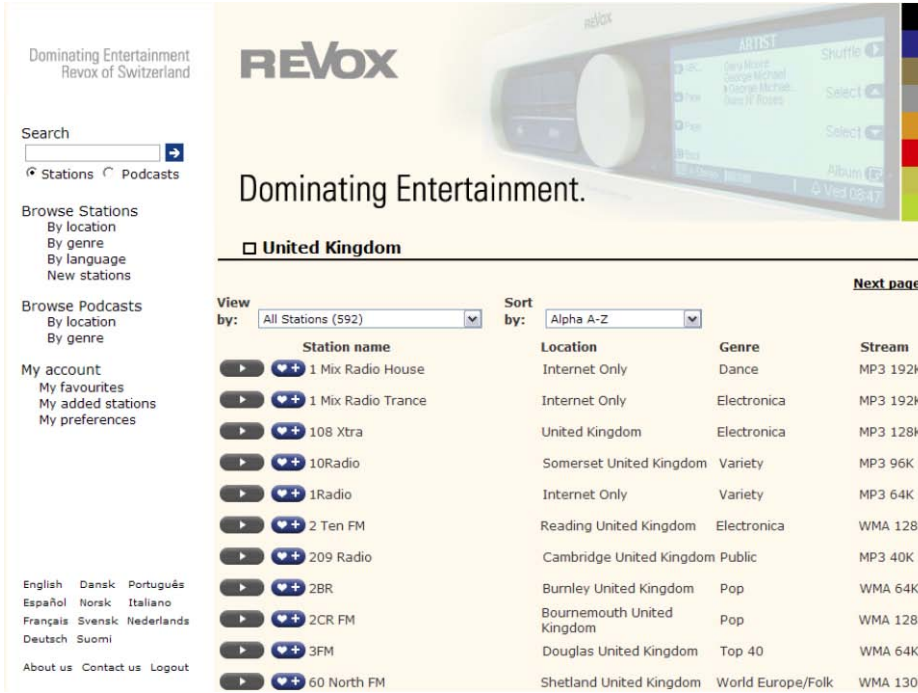
The transfer of the lists to your MMM happens automatically over the Internet connection. Shortly after editing your list or adding new stations in the IAP, you will find these changes on your MMM.

Currently, you can make selections on the Internet Audio Portal according to the following criteria:

Browse Stations
By location
By genre
By language
New stations

Browse Podcasts
By location
By genre

Radio station listing in the IAP



Adding radio stations to favourites

Clicking on the ♥+ in the station list adds the corresponding radio station to the favourites in the MMM's *Internet Radio* selection.

This opens the window shown on the right where you can decide which favourite group the radio station should be added to or if you want to create a new favourites group for it.

A **maximum of 9 groups** can be generated to organise your favourites.

Favourite stations.
Close
Choose a favourites group and click "Go" to add the Station BBC Radio 2 UK Only to your Favourites.
Create new favourites group with your station
Go
Internet
100%

Synchronising MMM devices

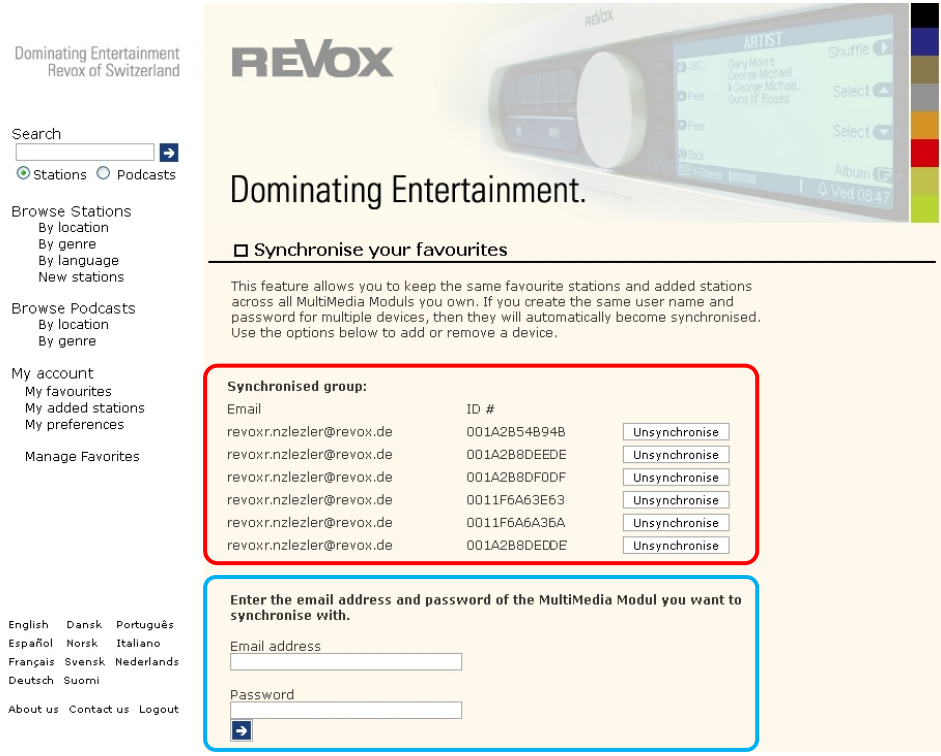
If you own several Revox devices (Multimedia Module, S118, S119, S120 of the Joy series), you can synchronise your Favourites list and added radio stations with each other. This means you create your Favourites list one time and it can then be called from all registered Joy devices.

Several devices, one account

The easiest way is to enter the **individual** MAC addresses the first time you register each device but give the **same** e-mail address and the **same** password for all devices (see the red box below).

Several devices, different accounts

If you have generated several devices with different accounts (e-mail address + password), you can retrospectively synchronise them with each other (see the blue box below). Here, you simply enter the accounts of the devices, which should also use these Favourites. If Favourites have already been created for the other devices, these are not displayed. If you use an individual account for the devices, only **one** device should also be assigned to this, as otherwise there can be link-up conflicts.



Network Questions & Answers

Network is ok but there is no sound.

You should be aware that the MMM cannot support all data formats that are available on the Internet. It can occur that a station cannot be played. See *Technical data*

Other reasons why your Internet Radio doesn't play:

- Not all radio stations broadcast 24/7
- Radio stations may not be available any more
- The Revox equipment is muted
- The provider's (Radio Sender/ Provider) server capacity is fully utilised

Transmission within your network breaks down because:

- (Internet) network problems
- Server capacity fully utilised

NETWORK QUESTIONS / TIPS

The connection is lost after a few minutes:

This is a system-based characteristic of the UPnP standard. Active communication starts on a port with a number higher than 1024 and then changes regularly during operation. Not all firewall programs recognise this knocking on different doors as a continuous connection. Depending on the configuration, the firewall may decide against an unknown client in case of doubt.
Depending on the firewall software, this can be resolved through the following actions:

- By using a fixed IP and without DHCP, define the MMM as a so-called Trusted Host, i.e. a device from which all communication is considered to be trustworthy.
- Allow the server to accept incoming and outgoing communication with the MMM over ports 1024 - 65535.

Activate the exception setting for "UPnP Framework", e.g. Windows XP Firewall or activate "Permit UPnP communication".

NETWORK QUESTIONS / TIPS

The MMM finds my Access Point, however my computer is not displayed.

- Make sure you have installed a UPnP server on your computer and that this is activated. Depending on the amount of data and the software, it can take a few seconds before the option appears as a selection on the MMM.
- You have activated a MAC address filter on your router. In this case, add the MMM MAC address to you router configuration. You will find this on Setup page #1.
- Your router only assigns fixed IPs. Deactivate DHCP and enter a fixed IP address both in the MMM and the router.

My Access Point's SSID is not listed.

- The MMM can only find your Access Point if it is within range. Reduce the distance to the Access Point and try again.
- Depending on the configuration, the router's SSID may be hidden. If this option is activated, the SSID must be entered manually on page #3 of the MMM Setup menu.

NETWORK QUESTIONS / TIPS

A lot of Access Points are displayed that are unknown to me.

If several Access point, for example those installed in neighbouring buildings are available to the MMM, these will also be listed. Select your Access Point and continue with the configuration.

The MMM indicates to me that my network is encrypted.

Your network is protected against external attacks with an encryption (WEP / WPA). Enter your key in the MMM Setup so that the MMM is identified as "User" in the network.

Where do I get my key from?

If you installed your network yourself, you will have defined it as part of that work. Otherwise, you will get it from your System Administrator

Can other data on my network hard disc or server by read or viewed?

No, the MMM can only receive data that is released by the UPnP server. In this way, the MMM only accesses your files. Other data on your server is not transferred and cannot be viewed.

NETWORK QUESTIONS / TIPS

Network activity?

Two LEDs are integrated in the MMM network socket, which
display bus activity. If the network connection is working, the orange LED lights up permanently while the flashing of the green LED indicates that data exchange is taking place.

Point-to-Point

If the MMM is connected directly to a PC without using a router, cabling is done using a **Cross Over Cable**.

Distribution with Router

If the MMM is connected to the network through a router, a **Patch Cable** (1:1) is to be used.

Network setting?

Have all the MMM Setup settings been correctly applied and has a restart been carried out following any changes?

Ping test?

Does the MMM respond to a Ping attempt? Is it recognised in the network? The MMMs deployed or assigned IP address can be seen on Setup page #1.

NETWORK QUESTIONS / TIPS

Encryption protocol?

Is the implemented encryption protocol (WEP, WPA-SK) and/or the corresponding key correct?

My WLAN connection?

Was my Access Point / WLAN router selected or one from a neighbouring system selected, which because of its locational proximity, can also be received?

Multiroom- Questions & Answers

Wake-up function with MMM

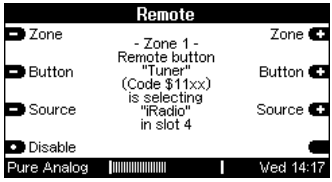
The MMM can also be used to wake you over the Multiroom system. The following has to be taken into account:

Remote setting

The Multiroom module timer (MTR) makes three sources available to choose from, which are called as soon as the timer is switched on. **Tuner**, **DVD/CD** and **Aux/Server** can serve as variables (Remote button).

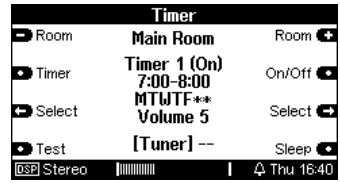
When selecting the source, you should be aware that the source is selected, which was assigned through the **Remote** menu to the *Tuner*, and/or *DVD/CD* and *Aux/Server* Remote button respectively.

In the example below for example, the MMM source *iRadio* was assigned to the **Tuner** Remote button.



M100 Remote menu

In order that *iRadio* is used as the Timer source, the source variable [**Tuner**] must be selected in the timer programming for this assignment example.



Multiroom module Timer menu

ⓘ

You will find further information on this topic in the *M51introduction* chapter under the **REMOTE** function.

The following fallbacks have been implemented to ensure that you can be sure of your wake-up call even if there is failure of the network, router or server:

> No stream (iRadio) available for more than 30 seconds?

>> Play the iRadio station that is stored in MyMusic

> No playback of MyMusic entries possible / available?

>> Playback from USB stick[1]

[1] USB stick: mp3 file in the **Root** folder - subfolders are **not** used!

Technical data

Playable formats

Streaming Client[1]	WAV (96 kHz,32 bit), FLAC (24 bit), AIFF (32 bit), AAC, MP3 (cbr +vbr, 320 kB), OGG-Vorbis, WMA
Playlists	M3U, PLS
Internet Radio Data Base	Revox Internet Audio Portal (Online Services)
Supported Media server	Connect Server (WMDRM10)
Supported Media server	UPnP-AV 1.1 and DLNA compatible servers Microsoft Windows Media
Supported gapless formats	WAV, FLAC, AIFF, MP3 (requires Lame gapless tags: MP3_ACCURATE_LENGTH, ENC_DELAY, ENC_PADDING) und AAC (requires gapless tag "iTunSMPB" as set by iTunes)

Interfaces

Ethernet 10/100, WLAN 802.11b/g, USB[2] 2.0, iPod

Audio data

Distortion factor	< 0.006 % (Streaming Client mp3/ 192 kps)
Unweighted signal-to-noise ratio	> 95 dB (Filter 100Hz, 22 kHz)
Channel separation	> 95 dB (1 kHz)

WLAN

Operating distance	300m open space 30 - 100m in buildings (depending on building design)
Software version (*.a90) with corresponding firmware version (*.bcd)	mmm+5 2.12 Firmware-Version: MMM+3+4+5_SeDMP analog iPOD Revox v12771.12.bcd mmm+6 2.13 Firmware-Version: MMM+6_SeDMP2 digital iPOD Revox v12743.14 dev.bcd

[1] The audio formats listed must be supported by the UPnP server so that the MMM can play them. It is not enough for the audio files simply to exist on the server.

[2] Only suitable for USB hard discs with their own power supply or memory sticks.

E&OE

Warranty

Warranty covers a period of 24 months from the purchasing date.

Your specialist dealer is your first contact if you need service help. If he can't give you the help you need, send the MMM module carriage free and without any accessories to your national Sales Office. Please supply a complete description of the fault together with your address.

Scope of delivery

- Multi Media Module
- External power supply
- iPod adapter cable (only MMM 05)
- WLAN aerial
- Operating manual

Note COPYRIGHT

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Irrtümer und technische Änderungen vorbehalten. E&EO

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